

What's New in Unleashed Version 200.5?

This application note describes the new features available in Ruckus Wireless Unleashed version 200.5. This document assumes familiarity with the Ruckus Unleashed product line and the features of earlier release version 200.4.

Highlights of this Release

Ruckus Unleashed is a controller-less wireless LAN solution that enables Small-Medium Business (SMBs) to deliver an optimal wireless experience to their users at an affordable price. Customers can expand their business to multiple locations seamlessly with Unleashed Multi-Site Manager. If the business scales even further, Ruckus Unleashed offers migration options to Ruckus ZoneDirector, SmartZone or Ruckus Cloud.

Key features and enhancements in this release are:

Feature	Brief Description and Benefits
Support for additional 802.11ac WAVE 2 Access Points	R720, T610 and H320 are now supported under Unleashed portfolio
Multi-Site Support	Deploy Unleashed on multiple sites and manage it with Unleashed Multi-Site manager
Mobile App v2	Manage up to 10 Unleashed networks remotely with Social Login; Customer can also "Invite" someone to remotely manage network using mobile app feature
WLAN per radio support	Enable/Disable WLANs on per radio basis
Radius Accounting	Enable radius accounting
Gateway AP's resiliency Enhancement	If Master AP fails simply take one of the Member APs and re-wire the cable, Config is already synced up with Member APs.
Dynamic VLAN	Assign users to different VLANs based on their role
Port Forwarding in Gateway mode	Allow wired and wireless users behind the gateway AP be accessible from outside
Preferred Master Support	Allow customers to choose a particular AP to be the Master AP in an Unleashed network
Enhancements to Mesh Deployment	Mesh link will be formed regardless of gateway IP reachability
Deployment Simplification	Now, there is no need to go through "Create Master" process. Saves time in deployment process. As soon as the user opens a browser it will be redirected to 'setup wizard' page if they are connected to 'config.me' SSID. No need to type long 'unleashed.ruckuswireless.com' to go through the installation process.

UPnP and Bonjour services discovery	Unleashed APs can be discovered using UPnP and Bonjour services making them to easy to setup and manage
Multi-language update	Multi-language support is enhanced to support all the 200.5 updates; Italian language support added

- Supported AP models in Unleashed 200.5

	Unleashed R720 802.11ac Wave 2 Dual-band Multi 2.5 GigE Access Point
Indoor	Unleashed R710 802.11ac Wave 2 Dual-band Access Point
	Unleashed R610 802.11ac Wave 2 Dual-band Access Point
	Unleashed R510 802.11ac Wave 2 Dual-band Access Point
	Unleashed H510 802.11ac Wave 2 Dual-band Access Point
	Unleashed H320 802.11ac Wave 2 Dual-band Access Point
	Unleashed R600 802.11ac Dual-band Access Point
	Unleashed R500 802.11ac Dual-band Access Point
	Unleashed R310 802.11ac Dual-band Access Point
	Outdoor
Unleashed T710s (Sector) 802.11ac Wave 2 Dual-band Access Point	
Unleashed T610 (Omni) 802.11ac Wave 2 Dual-band Access Point	
Unleashed T610 (Sector) 802.11ac Wave 2 Dual-band Access Point	
Unleashed T300 (Omni) 802.11ac Dual-band Access Point	
Unleashed T300e(External antenna) 802.11ac Dual-band Access Point	
Unleashed T301n (Narrow) 802.11ac Dual-band Access Point	
Unleashed T301s (Sector) 802.11ac Dual-band Access Point	

1. Support for 802.11ac WAVE 2 Access Points R720, T610 and H320

Unleashed R720

The Ruckus R720 Unleashed indoor access point is the highest-capacity four-stream 802.11ac Wave 2 Wi-Fi AP. It features multi-gigabit technology, so you can step up to faster Wi-Fi speeds and 2.5GbE backhaul connectivity without having to replace your Cat 5e cabling or use additional switch ports. Deploy a high-performance, highly resilient Wi-Fi network without breaking the bank.

With hundreds of devices and nonstop wireless noise and interference, busy indoor environments can be the most challenging Wi-Fi deployments. The R720 Unleashed makes it easy to deliver reliable, high-performance connectivity in any indoor space.

With four stream MU-MIMO connectivity, the R720 Unleashed can simultaneously transmit to multiple Wave 2 clients in the widest available channels, drastically improving RF efficiency even for non-Wave 2 clients.

Key Features

- 4-stream 802.11ac Multi-User MIMO (MU-MIMO)
- Concurrent dual-band (5GHz/2.4GHz) support
- 80MHz, 80+80MHz and 160MHz channelization; 256-QAM modulation support; 1.733Gbps PHY rates at 5GHz
- 256-QAM support on 2.4GHz
- 802.11ac standard Tx Beamforming
- One 2.5Gbps Ethernet port and one 1Gbps Ethernet port
- USB port for hosting Internet-of-Things (IoT) devices such as Bluetooth Low Energy (BLE) smart beacons
- Deep Packet Inspection (DPI/L7) based Application Recognition & Control

Unleashed T610

Ruckus T610 Unleashed delivers blazing-fast connectivity for medium-density outdoor deployments, with data rates up to 2.5Gbps—the highest available data rates for Wi-Fi clients. Patented Ruckus adaptive antenna technology improves signal quality for every connected device, everywhere. And the AP delivers all of this in an industrial-grade enclosure that can stand up to the rigors of the elements in practically any outdoor space.

The T610 Unleashed is purpose-built for busy public venues such as outdoor arenas, convention centers, and transportation hubs. It provides industrial-grade features such as secure image downloads and an IP67-compliant USB port, making it easy to deploy IoT applications for Smart Cities or large-scale video surveillance/monitoring systems. It's the perfect choice for medium-density deployments with standard Ethernet backhaul that require premium wireless performance.

Key Features

- 802.11ac Multi-User MIMO (MU-MIMO)
- Concurrent dual-band (5 GHz/2.4 GHz) support
- 2533 Mbps maximum PHY rate (1733 Mbps in 5GHz; 800 Mbps in 2.4GHz)
- 802.11ac standard Tx Beamforming
- Low Density Parity Check (LDPC) for increased data throughput at all ranges
- 256-QAM support on 5GHz and 2.4GHz
- One 1 x 1GbE port for backhaul
- Second 1GbE port, for Link Aggregation
- Deep Packet Inspection (DPI/L7) based Application Recognition & Control

Unleashed H320

Ruckus H320 Unleashed combines an 802.11ac Wave 2 Wi-Fi access point and wired switch into one wall-mount device. Designed specifically for per-room deployments, the H320 Unleashed is compact, inconspicuous, secure, and easy to mount to an electrical junction box. Bottom facing Ethernet ports eliminate unsightly cabling and accommodate any furniture placement.

The H320 Unleashed easily supports converged wired and wireless services with one device, that include VoIP, IPTV, high-speed Internet access and in-room Wi-Fi device connectivity.

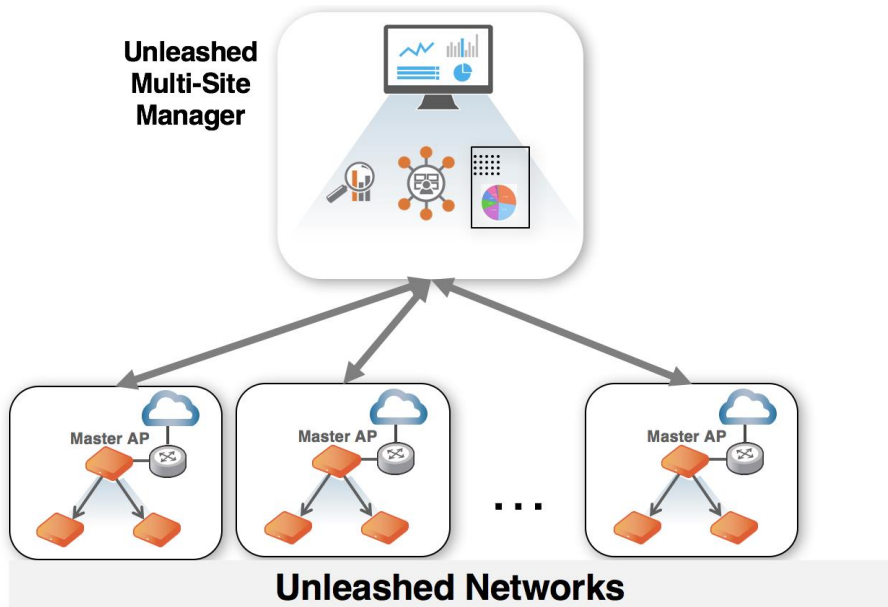
The H320 Unleashed supports Multi-User MIMO (MU-MIMO) which increases network throughput by transmitting to multiple clients simultaneously. Support per-room wired IP devices from TVs to phones with 2 onboard Ethernet ports. Also, with built-in visual troubleshooting tools within Ruckus Wi-Fi controllers, administrators can accelerate resolution of trouble tickets.

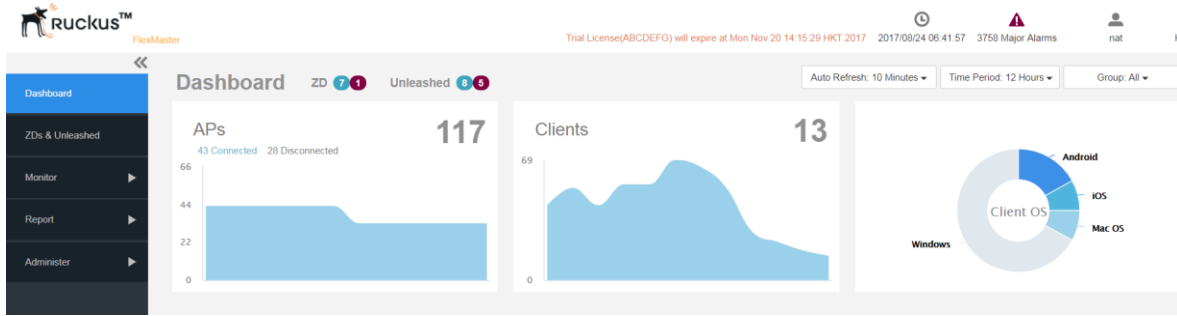
Key Features

- Integrated dual radio 2x2 802.11ac Wave 2 Wi-Fi AP and Ethernet wall switch supporting Multi-User MIMO (MU-MIMO)
- Matched Band Coverage ensures similar Wi-Fi coverage for both 2.4 and 5 GHz client devices
- Multiple BSSIDs per radio with unique QoS and security policies

2. Multi-Site Support (Unleashed Multi-Site Manager)

Now, Unleashed can be deployed at multiple sites and be managed from a central location using the Unleashed Multi-Site Manager. Unleashed Multi-Site Manager provides a single pane of glass visibility and management of all Unleashed networks. It enables customers to perform remote monitoring, centralized management and detailed reporting of all Unleashed networks.





Dashboard provides complete information about all the Unleashed networks. Unleashed Multi-Site Manager can also manage ZD based networks.



Customer Benefits

- Centralized Monitoring, Reporting, and Management for 300 Unleashed networks and 7,500 Unleashed APs
- With Single-Sign-On, Login to UMM and manage all Unleashed networks from one place

3. Mobile App version 2.0

Unleashed 200.5 enhances the user experience of the Mobile App and adds some important functionality to the app. With Mobile App version 2.0, up to 10 Unleashed networks can be managed remotely by using the social login feature.

Customers can link the Unleashed network to their social logins - Facebook, Google or Twitter and access their Unleashed networks from anywhere in the world. There is no need to alter firewall settings for remote management or do complex port forwarding configuration. Secure channel is established between mobile client and Unleashed network to ensure the security is not compromised while it is so easy to access the network remotely.

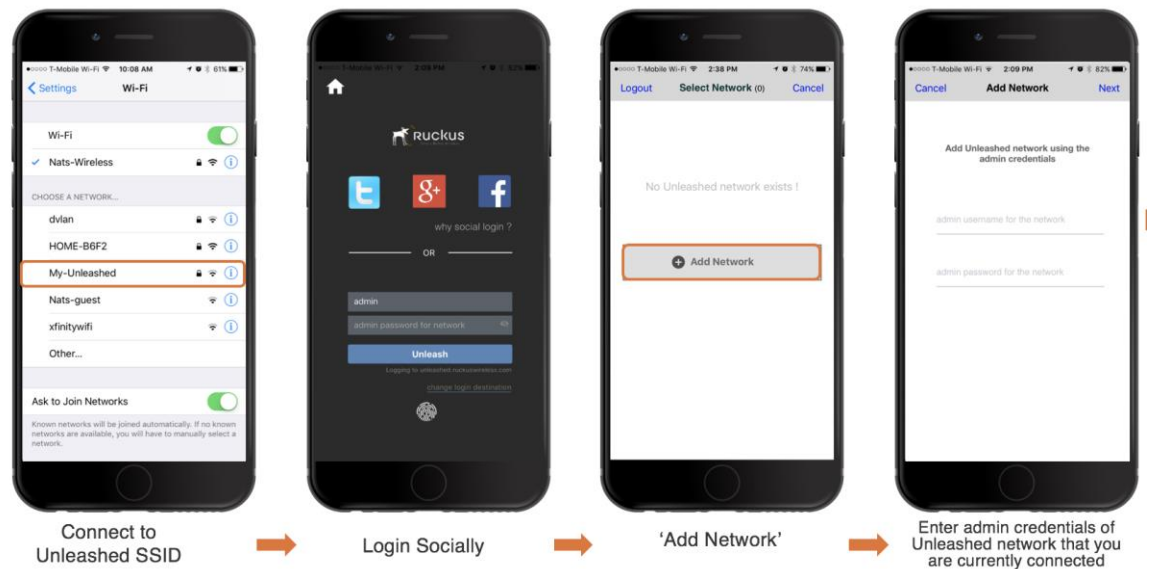
To add, whenever there is any service affecting events such as AP reboot takes place a mobile notification will be sent out to alert the user.

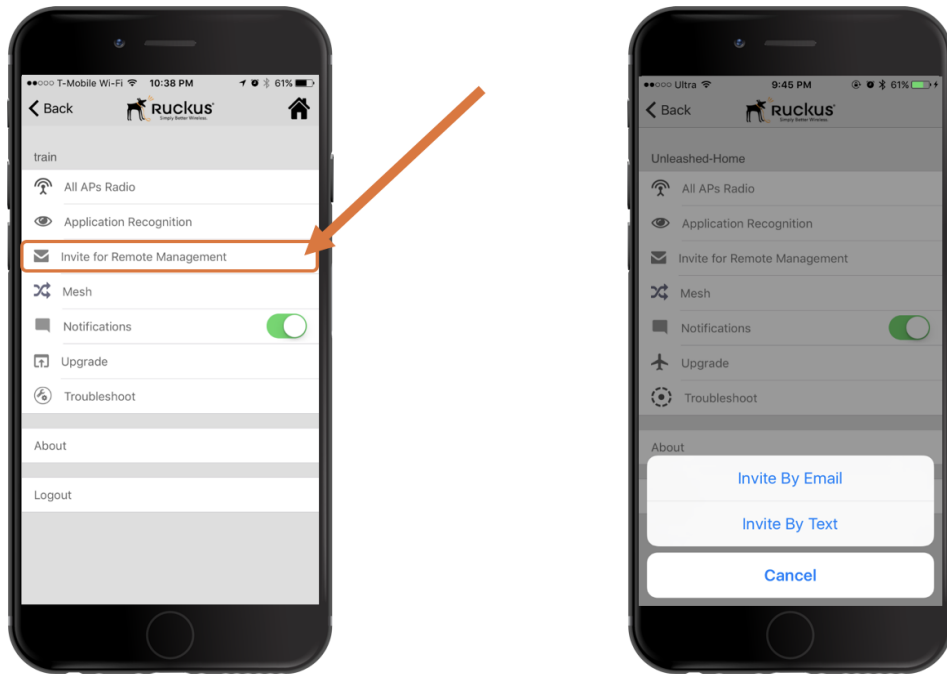
Further, customers can leverage an innovative feature called “Invite for Remote Management” in order to invite others to manage their network remotely.

For Remote Management using Mobile App, customer needs valid Ruckus Support contract.

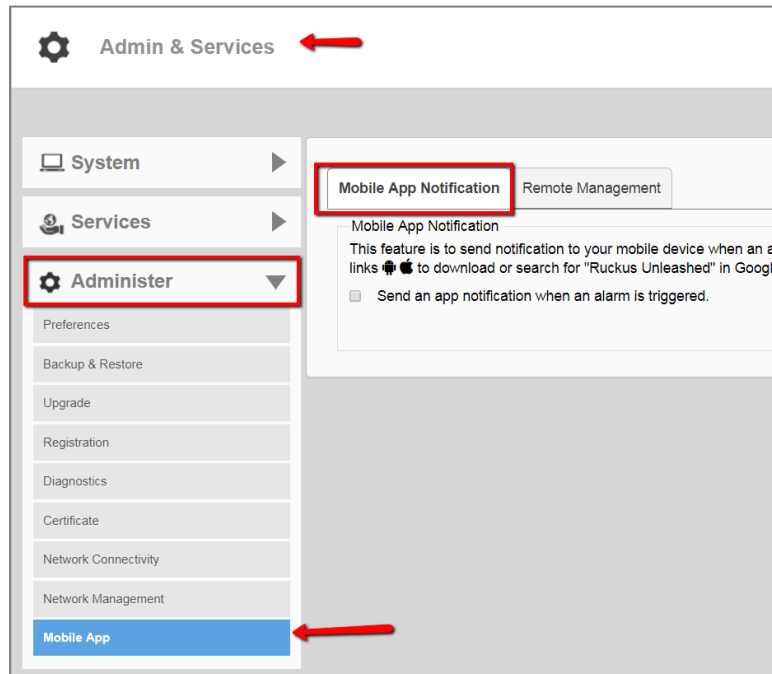
Customer Benefits

- Enhanced User Experience
- Convenience and ease of use with ability to manage network from anywhere
- Quickly ask for assistance from an expert with invite for remote management



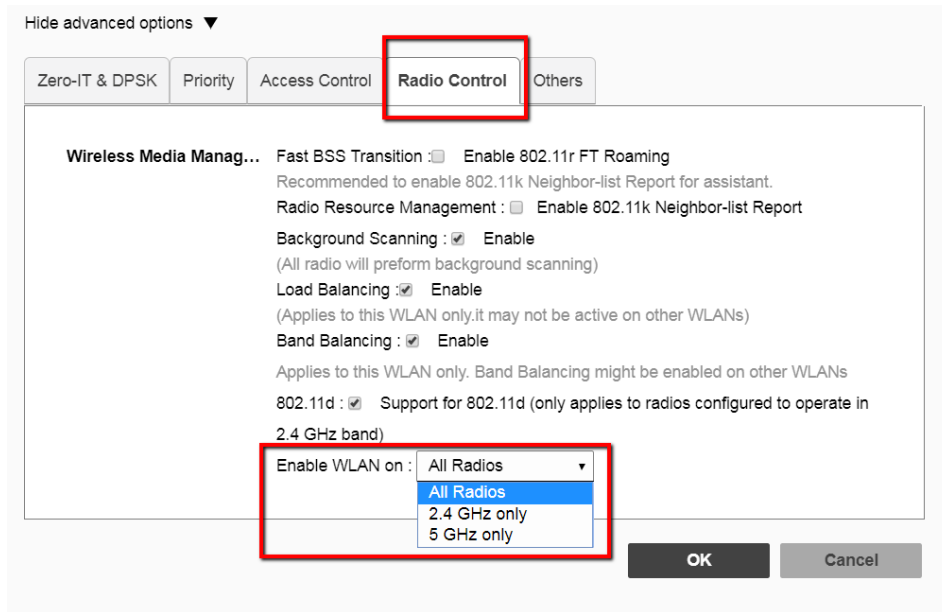


Invite for Remote Management



4. WLAN per radio support

In Unleashed APs, by default all WLANs are broadcasted across all APs and on both radios. This feature allows to disable broadcasting WLAN on a particular radio across all APs. Disabling a particular radio on a specific AP is already supported under AP configuration in 200.4.



Hide advanced options ▼

Zero-IT & DPSK Priority Access Control **Radio Control** Others

Wireless Media Manag... Fast BSS Transition : Enable 802.11r FT Roaming
 Recommended to enable 802.11k Neighbor-list Report for assistant.
 Radio Resource Management : Enable 802.11k Neighbor-list Report
 Background Scanning : Enable
 (All radio will preform background scanning)
 Load Balancing : Enable
 (Applies to this WLAN only,it may not be active on other WLANs)
 Band Balancing : Enable
 Applies to this WLAN only. Band Balancing might be enabled on other WLANs
 802.11d : Support for 802.11d (only applies to radios configured to operate in 2.4 GHz band)

Enable WLAN on : ▼
 All Radios
 2.4 GHz only
 5 GHz only

OK Cancel

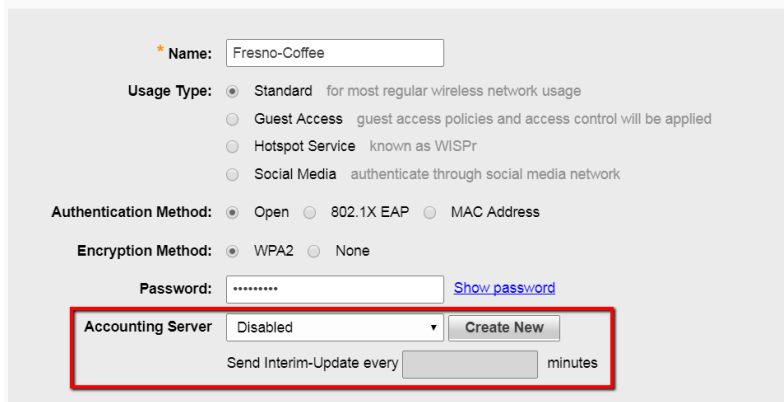
Customer Benefits

- Provides better control of the network

5. Radius Accounting

Customers can configure radius accounting from 200.5 release.

Edit WLAN



* Name:

Usage Type: Standard for most regular wireless network usage
 Guest Access guest access policies and access control will be applied
 Hotspot Service known as WISPr
 Social Media authenticate through social media network

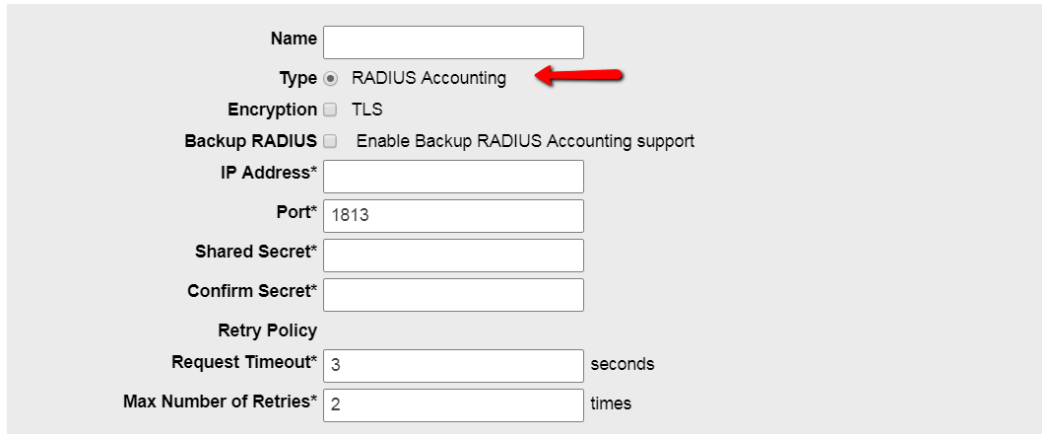
Authentication Method: Open 802.1X EAP MAC Address

Encryption Method: WPA2 None

Password: [Show password](#)

Accounting Server:
 Send Interim-Update every minutes

Create Authentication Server



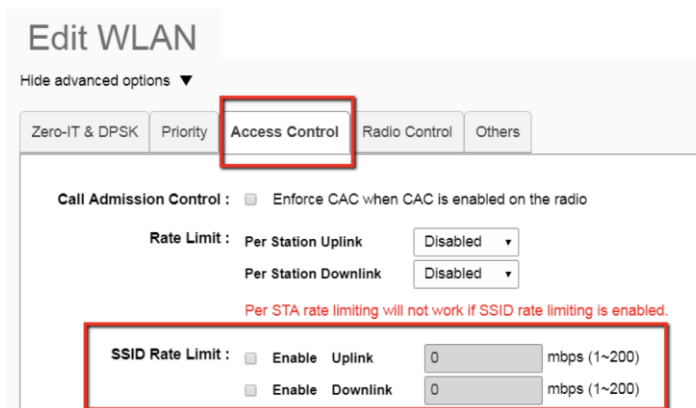
Configuration option also available under “Admin & Services -> Services -> AAA Servers

Customer Benefits

- Enhanced security
- Availability of info related to User accounting

6. SSID Rate-limiting

Till 200.4, customers could rate-limit each devices’ bandwidth. In 200.5, WLAN itself can be rate limited. Users have option to define the uplink and downlink speeds. A WLAN can be rate-limited up to 200 Mbps.

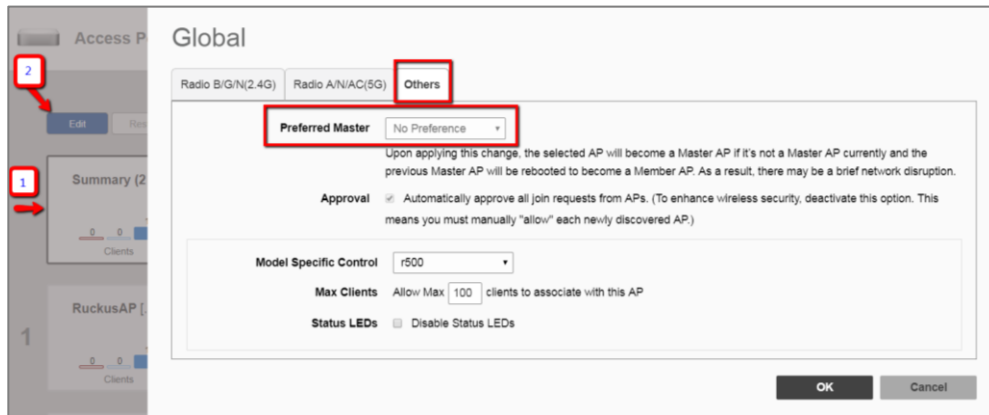


Customer Benefits

- Better network control

7. Preferred Master

The 'Preferred Master' feature enables customers to choose which AP to perform the "Master" role in their network. If configured, chosen "Preferred Master" AP will be the Master AP even after reboot of Master AP. By default, the very first AP becomes the Master AP.



Customer Benefits

- Better network control

8. Gateway AP's resiliency Enhancement

Prior to 200.5, Ruckus recommended to backup the configuration of Gateway AP in order to quickly restore the network if Gateway AP fails. In 200.5, if Gateway AP fails simply take another AP within the same Unleashed network and replace the Gateway AP - just ensure the WAN and LAN cables are properly connected.

Customer Benefits

- Ease of use
- Quick restoration of WiFi service

9. Deployment Simplification

Starting Unleashed version 200.5 when users start the installation process of an Unleashed AP he/she will be directly taken to 'Setup Wizard' which avoids the "Create Master" process that existed in previous releases.

In addition, after connecting to 'Config.me' SSID, when he/she opens a web browser it will be redirected to 'unleashed.ruckuswireless.com' automatically. This avoids the pain of typing the long URL 'unleashed.ruckuswireless.com'.

Customer Benefits

- Ease of deployment
- Saves time to deploy Unleashed network (now takes under 4 minutes)